

## PATENT COOPERATION TREATY

PCT

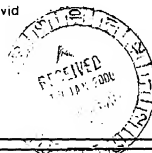
NOTIFICATION CONCERNING  
SUBMISSION OR TRANSMITTAL  
OF PRIORITY DOCUMENT

(PCT Administrative Instructions, Section 411)

From the INTERNATIONAL BUREAU

To:

GREENWOOD, John, David  
Graham Watt & Co  
Riverhead  
Sevenoaks  
Kent TN13 2BN  
ROYAUME-UNI



Date of mailing (day/month/year) 22 December 1999 (22.12.99)	
Applicant's or agent's file reference 13208.jdg.cjh	<b>IMPORTANT NOTIFICATION</b>
International application No. PCT/GB99/03736	International filing date (day/month/year) 10 November 1999 (10.11.99)
International publication date (day/month/year) Not yet published	Priority date (day/month/year) 10 December 1998 (10.12.98)
Applicant MILLIPORE CORPORATION et al	

- The applicant is hereby notified of the date of receipt (except where the letters "NR" appear in the right-hand column) by the International Bureau of the priority document(s) relating to the earlier application(s) indicated below, unless otherwise indicated by an asterisk appearing next to a date of receipt, or by the letters "NR" in the right-hand column, the priority document concerned was submitted or transmitted to the International Bureau in compliance with Rule 17.1(a) or (b).
- This updates and replaces any previously issued notification concerning submission or transmittal of priority documents.
- An asterisk (\*) appearing next to a date of receipt in the right-hand column, denotes a priority document submitted or transmitted to the International Bureau but not in compliance with Rule 17.1(a) or (b). In such a case, the attention of the applicant is directed to Rule 17.1(c) which provides that no designated Office may disregard the priority claim concerned before giving the applicant an opportunity, upon entry into the national phase, to furnish the priority document within a time limit which is reasonable under the circumstances.
- The letters "NR" appearing in the right-hand column denote a priority document which was not received by the International Bureau or which the applicant did not request the receiving Office to prepare and transmit to the International Bureau, as provided by Rule 17.1(a) or (b), respectively. In such a case, the attention of the applicant is directed to Rule 17.1(c) which provides that no designated Office may disregard the priority claim concerned before giving the applicant an opportunity, upon entry into the national phase, to furnish the priority document within a time limit which is reasonable under the circumstances.

Priority date	Priority application No.	Country or regional Office or PCT receiving Office	Date of receipt of priority document
10 Dec 1998 (10.12.98)	9827164.6	GB	16 Dec 1999 (16.12.99)

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland Facsimile No. (41-22) 740.14.36	Authorized officer Lazar Joseph <i>[Signature]</i> Telephone No. (41-22) 338.83.38
--	--

## PATENT COOPERATION TREATY

PCT

NOTICE INFORMING THE APPLICANT OF THE  
COMMUNICATION OF THE INTERNATIONAL  
APPLICATION TO THE DESIGNATED OFFICES

(PCT Rule 47.1(c), first sentence)

From the INTERNATIONAL BUREAU

To:  
GREENWOOD, John, David  
Graham Watt & Co.  
Riverhead  
Sevenoaks  
Kent TN13 2BN  
ROYAUME-UNI



Date of mailing (day/month/year) 15 June 2000 (15.06.00)		
Applicant's or agent's file reference 13208.jdg.cjh		
<b>IMPORTANT NOTICE</b>		
International application No. PCT/GB99/03736	International filing date (day/month/year) 10 November 1999 (10.11.99)	Priority date (day/month/year) 10 December 1998 (10.12.98)
Applicant MILLIPORE CORPORATION et al		

1. Notice is hereby given that the International Bureau has communicated, as provided in Article 20, the international application to the following designated Offices on the date indicated above as the date of mailing of this Notice:

AU, CN, JP, KP, KR, US

In accordance with Rule 47.1(c), third sentence, those Offices will accept the present Notice as conclusive evidence that the communication of the international application has duly taken place on the date of mailing indicated above and no copy of the international application is required to be furnished by the applicant to the designated Office(s).

2. The following designated Offices have waived the requirement for such a communication at this time:

AE, AL, AM, AP, AT, AZ, BA, BB, BG, BR, BY, CA, CH, CR, CU, CZ, DE, DK, DM, EA, EE, EP, ES, FI, GB, GD, GE, GH, GM, GR, HU, ID, IL, IN, IS, KE, KG, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, OA, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW

The communication will be made to those Offices only upon their request. Furthermore, those Offices do not require the applicant to furnish a copy of the international application (Rule 49.1(a-bis)).

3. Enclosed with this Notice is a copy of the international application as published by the International Bureau on 15 June 2000 (15.06.00) under No. WO 00/33935

**REMINDER REGARDING CHAPTER II (Article 31(2)(a) and Rule 54.2)**

If the applicant wishes to postpone entry into the national phase until 30 months (or later, in some Offices) from the priority date, a demand for international preliminary examination must be filed with the competent International Preliminary Examining Authority before the expiration of 19 months from the priority date.

It is the applicant's sole responsibility to monitor the 19-month time limit.

Note that only an applicant who is a national or resident of a PCT Contracting State which is bound by Chapter II has the right to file a demand for international preliminary examination.

**REMINDER REGARDING ENTRY INTO THE NATIONAL PHASE (Article 22 or 39(1))**

If the applicant wishes to proceed with the international application in the national phase, he must, within 20 months or 30 months, or later in some Offices, perform the acts referred to therein before each designated or elected Office.

For further important information on the time limits and acts to be performed for entering the national phase, see the Annex to Form PCT/IB/301 (Notification of Receipt of Record Copy) and Volume II of the PCT Applicant's Guide.

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland	Authorized officer J. Zahra
Facsimile No. (41-22) 740 14 35	Telephone No. (41-22) 338 83 38

## PATENT COOPERATION TREATY

PCT

## NOTIFICATION OF ELECTION

(PCT Rule 61.2)

From the INTERNATIONAL BUREAU

To:

Assistant Commissioner for Patents  
United States Patent and Trademark  
Office  
Box PCT  
Washington, D.C. 20231  
ETATS-UNIS D'AMERIQUE

in its capacity as elected Office

Date of mailing: 15 June 2000 (15.06.00)	
International application No.: PCT/GB99/03736	Applicant's or agent's file reference: 13208.jdg.cjh
International filing date: 10 November 1999 (10.11.99)	Priority date: 10 December 1998 (10.12.98)
Applicant: DICKSON, Nicola, Jane	

1. The designated Office is hereby notified of its election made:

☒ in the demand filed with the International preliminary Examining Authority on  
30 March 2000 (30.03.00)☐ in a notice effecting later election filed with the International Bureau on:2. The election ☒ was☐ was not

made before the expiration of 19 months from the priority date or, where Rule 32 applies, within the time limit under Rule 32.2(b).

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland Facsimile No.: (41-22) 740.14.35	Authorized officer: J. Zahra Telephone No.: (41-22) 338.83.38
---	---

## INTERNATIONAL SEARCH REPORT

National Application No.

PCT/GB 99/03736

A. CLASSIFICATION OF SUBJECT MATTER  
 IPC 7 B01D15/08 G01N30/56

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 B01D G01N

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5 610 322 A (R. UNGER) 11 March 1997 (1997-03-11) column 1, line 48 - line 52 column 3, line 59 - column 4, line 31 ----	1,5
X	EP 0 515 955 A (MERCK PATENT G.M.B.H.) 2 December 1992 (1992-12-02) column 2, line 25 - line 51 ----	1,5
A	US 5 363 886 A (M. ASHRAF-KHORASSANI) 15 November 1994 (1994-11-15) -----	

☐ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

## \* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"Z" document member of the same patent family

Date of the actual completion of the international search

10 February 2000

Date of mailing of the international search report

21/02/2000

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2  
 NL - 2280 HV Rijswijk  
 Tel: (+31-70) 340-2040, Tx: 31 651 epo nl,  
 Fax: (+31-70) 340-2016

Authorized officer

Hilgenga, K

## INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/GB 99/03736


Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 5610322 A	11-03-1997	DE 4432887 A EP 0702231 A JP 8094604 A	21-03-1996 20-03-1996 12-04-1996
EP 515955 A	02-12-1992	DE 4117604 A JP 5157744 A	03-12-1992 25-06-1993
US 5363886 A	15-11-1994	US 5241998 A	07-09-1993

# PATENT COOPERATION TREATY

## PCT

### INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 13208.jdg.cjh		<b>FOR FURTHER ACTION</b>	See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)
International application No. PCT/GB99/03736	International filing date (day/month/year) 10/11/1999	Priority date (day/month/year) 10/12/1998	
International Patent Classification (IPC) or national classification and IPC B01D15/08			
Applicant MILLIPORE CORPORATION et al.			
<p>1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of 4 sheets, including this cover sheet.</p> <p><input type="checkbox"/> This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).</p> <p>These annexes consist of a total of sheets.</p>			
<p>3. This report contains indications relating to the following items:</p> <ul style="list-style-type: none"> <li>I <input checked="" type="checkbox"/> Basis of the report</li> <li>II <input type="checkbox"/> Priority</li> <li>III <input type="checkbox"/> Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</li> <li>IV <input type="checkbox"/> Lack of unity of invention</li> <li>V <input checked="" type="checkbox"/> Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</li> <li>VI <input type="checkbox"/> Certain documents cited</li> <li>VII <input type="checkbox"/> Certain defects in the international application</li> <li>VIII <input type="checkbox"/> Certain observations on the international application</li> </ul>			
Date of submission of the demand 30/03/2000		Date of completion of this report 01.03.2001	
Name and mailing address of the international preliminary examining authority:  European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465		Authorized officer  Skowronski, M  Telephone No. +49 89 2399 8475	



**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT**

International application No. PCT/GB99/03736

**I. Basis of the report**

1. This report has been drawn on the basis of *(substitute sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to the report since they do not contain amendments (Rules 70.16 and 70.17))*.

**Description, pages:**

1-24 as originally filed

**Claims, No.:**

1-6 as originally filed

**Drawings, sheets:**

1/5-5/5 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).  
☐ the language of publication of the international application (under Rule 48.3(b)).  
☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.  
☐ filed together with the international application in computer readable form.  
☐ furnished subsequently to this Authority in written form.  
☐ furnished subsequently to this Authority in computer readable form.  
☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.  
☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- ☐ the description, pages:  
☐ the claims, Nos.:

**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT**

International application No. PCT/GB99/03736

- ☐ the drawings, sheets:
5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)):  
*(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)*
6. Additional observations, if necessary:

**V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

**1. Statement**

Novelty (N)	Yes:	Claims
	No:	Claims 1, 5
Inventive step (IS)	Yes:	Claims 2-4, 6
	No:	Claims
Industrial applicability (IA)	Yes:	Claims 1-6
	No:	Claims

**2. Citations and explanations  
see separate sheet**



**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT - SEPARATE SHEET**

International application No. PCT/GB99/03736

Following document are relevant:

D1: US-A-5 610 322 (R. UNGER) 11 March 1997 (1997-03-11)

D2: EP-A-0 515 955 (MERCK PATENT G.M.B.H) 2 December 1992 (1992-12-02)

**Re Item V**

**1 Novelty (Article 33(2))**

- 1.1 **Claim 1:** A method of packing a chromatography column with chromatography media from a slurry vessel where excess fluid is returned to the slurry vessel is known from D2 (figure 1; column 2, lines 25-51). Consequently, the subject-matter of claim 1 is not new (Article 33(2)).
- 1.2 **Claim 5:** A chromatography system including a chromatography column and a slurry vessel, a pump means for pumping a slurry containing chromatography media from the slurry vessel to the chromatography column and transport means arranged to transport excess fluid output from the chromatography column during packing back to the slurry is known from D2 (figure 1; column 2, lines 25-51). Consequently, the subject-matter of claim 5 is not new (Article 33(2)).

**2. Inventive Step (Article 33(3))**

- 2.1 **Claim 2-4, 6:** In stead of a chromatography column system with a circulation pipe and a pump to circulate the slurry back to the slurry, D2 shows a slurry vessel having a mixer or similar installations (column 2, line 33-34). Thus the skilled person knows from the teaching of D2 that he could use any mixing means suitable for homogenising slurry in a slurry vessel. The proposed circulation line, however, has in addition of homogenising the slurry in the vessel, the effect of avoiding sedimentation in the pipes. Consequently, the subject-matter of claims 2-4 and 6 involve an inventive step (Article 33(3)).

From the

INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

To:

GREENWOOD, John David  
GRAHAM WATT & CO.  
Riverhead  
Sevenoaks  
Kent TN13 2BN  
GRANDE BRETAGNE



PCT

NOTIFICATION OF TRANSMITTAL OF  
THE INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT

(PCT Rule 71.1)

Date of mailing  
(day/month/year)

01.03.2001

Applicant's or agent's file reference  
13208.jdg.cjh

**IMPORTANT NOTIFICATION**

International application No.  
PCT/GB99/03736

International filing date (day/month/year)  
10/11/1999

Priority date (day/month/year)  
10/12/1998

Applicant

MILLIPORE CORPORATION et al.

1. The applicant is hereby notified that this International Preliminary Examining Authority transmits herewith the international preliminary examination report and its annexes, if any, established on the international application.
2. A copy of the report and its annexes, if any, is being transmitted to the International Bureau for communication to all the elected Offices.
3. Where required by any of the elected Offices, the International Bureau will prepare an English translation of the report (but not of any annexes) and will transmit such translation to those Offices.

**4. REMINDER**

The applicant must enter the national phase before each elected Office by performing certain acts (filing translations and paying national fees) within 30 months from the priority date (or later in some Offices) (Article 39(1)) (see also the reminder sent by the International Bureau with Form PCT/IB/301).

Where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary examination report. It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned.

For further details on the applicable time limits and requirements of the elected Offices, see Volume II of the PCT Applicant's Guide.

Name and mailing address of the IPEA/



European Patent Office  
D-80298 Munich  
Tel. +49 89 2399 - 0 Tx: 523656 epmu d  
Fax: +49 89 2399 - 4465

Authorized officer

Ipinazar, P

Tel. +49 89 2399-8131

